



Department of the Air Force

Military Construction and Family Housing Program

**Fiscal Year (FY) 2001
Budget Estimates**

**Justification Data Submitted to Congress
February 2000**

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FAMILY HOUSING

PART 5

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MAINTENANCE

DEPARTMENT OF THE AIR FORCE
MILITARY FAMILY HOUSING
FISCAL YEAR 2001 BUDGET REQUEST

RECONCILIATION OF INCREASES AND DECREASES

EXHIBIT OP-5

Maintenance. Provides upkeep of family housing real property through service calls, change of occupancy rehabilitation, routine maintenance, preventive maintenance, interior and exterior painting, and major repairs.

(\$ in Thousands)

1.	FY 2000 President's Budget	\$412,233
2.	Congressional Adjustment: Congressional Recission [-\$4,232K]	-\$4,232
3.	FY 2000 Projected Appropriated Amount:	\$408,001
4.	Supplementals:	None
5.	Price Growth:	None
6.	Functional Program Transfers:	None
7.	Program Increases:	None
8.	Program Decreases:	None
9.	FY00 Current Estimate	\$408,001
10.	Price Growth:	
11.	a. Inflation	\$6,120
	b. Foreign Currency Fluctuation Rate Adjustment	-\$1,686
12.	Functional Program Transfer:	None
13.	Program Increases: Increased emphasis on maintenance and repair to minimize escalating growth in the backlog of Deferred Maintenance and Repair.	\$27,051
14.	Program Decreases: Inventory Decrease (2,947 units)	-\$11,030
15.	FY 2001 Budget Request:	\$428,456

DEPARTMENT OF THE AIR FORCE
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FISCAL YEAR 2001 BUDGET REQUEST

Analysis of Changes in Maintenance Program

The maintenance account reflects Air Force Family Housing Master Plan (AF FHMP) priorities and attempts to arrest growth of our deferred housing maintenance and repair requirements within fiscal constraints. Unfortunately we have not eliminated our deferred maintenance and repair backlog. In 1999 we projected 61,000 inadequate units. Yet, after two years of strong congressional support of military family housing programs, the recent analysis of Air Force housing accomplished by architectural and engineering firms during the AF FHMP data gathering process, indicates that due to deferring maintenance and repair, we have made little headway in reducing the number of inadequate units. As of FY2001, the AF FHMP projects the need to revitalize approximately 65,000 inadequate houses.

The AF FHMP draws a distinct line between military construction and maintenance funding. Architect and engineering firms have gathered housing condition assessment data on every housing type in the Air Force. This data documents the existing condition of major housing system components (ex: roofs, furnaces, carpets, windows, cabinets) and then, using industry standard life cycles, projects the replacement requirement for these components (ex: roof: 15-20 years; gas furnace: 20 years). The overall condition of housing components and replacement costs determine whether each requirement is projected for replacement using military construction or maintenance funding. This database is then used to project future facility funding requirements for both construction and maintenance funding.

Air Force assets are valued at over \$16.5 billion in replacement costs. Limited maintenance funding and a high occupant turnover have accelerated deterioration of the Air Force housing inventory. Many of the homes were built in the 1950s and 1960s and have never received system upgrades. Constrained funding has resulted in a greater reliance on more costly, temporary fixes which only exacerbate the deterioration of our housing units. Notably, the infrastructure systems such as streets and sewers that support the units are now beyond their projected economic lives at most installations, with several systems near failure.

Housing condition assessments conducted for the AF FHMP substantiate that a failure to adequately fund maintenance and repair eventually leads to increased military construction costs. The maintenance and repair funding profile represents a balanced, fiscally constrained program of available funds.

Installation commanders have expressed concern about family housing and its impact on personnel performing the mission on their installations. In a Quality of Life Survey, family housing received the highest ranked response at 73%, far outpacing the next highest concern, which was health care at 34%. Installation Commanders concern for family housing was so high that they placed family housing in their top three priorities for needing additional funding--above areas such as base facilities, recreation and services, income/cost of living adjustments, and even health care.

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Consistent with DOD and Congressional concerns, the Air Force is actively pursuing means to reduce the deferred maintenance and repair (DMAR) backlog. The Air Force's goal is to reduce the end-of-year backlog to one year's normal recurring maintenance and repair of our dwellings to ensure availability of quarters that meet community standards. The method we use to measure our effectiveness against this standard is to track the impact of the funded program against DMAR. When funding is lower than maintenance requirements, asset deterioration accelerates. This current growth of maintenance costs is above inflation rates and increases the scope of future programmed work. Another impact from underfunded maintenance is an increase in the number of emergency repairs that are disruptive to occupants, costly, and manpower intensive. The backlog of unrepaired systems also generates other work (i.e., delayed roof projects require additional work to fix leaks, patch and paint ceilings, etc.). Current funding levels do not achieve the goal of reducing DMAR.

The Air Force has initiated a whole-house/whole-neighborhood concept to determine total funding required to bring existing facilities up to standards. This concept combines all improvements with required maintenance and repairs into one project, minimizing quarters downtime and disruption to residents due to piece-meal work. However, if whole-house renovations are delayed for too long, emergency projects to fix specific systems (e.g. roof leaks) must be accomplished in the interim, driving up life-cycle costs.

Quality family housing has a great impact on the lives of our members and the readiness of our forces. It is for this reason that we believe the maintenance dollars the Air Force has programmed into this budget will have a payback far greater than that which can be measured in terms of average unit costs. Future budget increases to this account can only improve the quality of life for our airmen and their families, which can produce positive leverage on retention and readiness.

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MAINTENANCE & REPAIR OVER \$20K

DEPARTMENT OF THE AIR FORCE
MILITARY FAMILY HOUSING
FISCAL YEAR 2001 BUDGET REQUEST

FAMILY HOUSING REPAIRS - NON GOQ UNITS
(EXCEEDING \$20,000 MAJOR MAINTENANCE AND REPAIR THRESHOLD)

This information complies with Congressional direction that requires the Services to report major maintenance and repair expenditures projected to exceed \$20,000 per unit. While these projects are shown as line items here, the maintenance budget estimate includes them among overall requirements for the entire inventory. Since over 60 percent of the average investment project includes major maintenance and repair actions, we can mitigate some of these problems through the O&M program.

CONUS

<u>Location</u>	<u>No Units</u>	<u>Year Built</u>	<u>High Unit Cost (\$000)</u>	<u>Unit (NSM)</u>	<u>Proj (NSM)</u>	<u>Total Cost (\$000)</u>	<u>Improvements Non-Routine FY1996-2000 (\$000)</u>
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ALABAMA

<u>Maxwell</u>	8	1970	82.5	144	1,295	660	0
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Narrative: Upgrades kitchens to include: cabinets, counter tops, plumbing, light fixtures, and flooring. Replaces doors (interior and exterior), windows and carpeting. Upgrades HVAC and water heaters and upgrades exterior by replacing siding and fascia.

CALIFORNIA

<u>Beale</u>	25	1960	70	123	3,075	1,750	0
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Narrative: Replaces kitchen appliances, installs dishwashers, replaces flooring, bathroom finishes, and fixtures. Replaces doors and installs closet organizers. Replaces deteriorated exterior siding and doors. Replaces windows with energy-conserving models. Installs additional wall insulation. Abates asbestos and lead-based paint.

<u>Los Angeles</u>	32	1982-85	31	154-176	5,632	800	0
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Narrative: Repairs and reconfigures kitchens; replaces countertops and cabinets; replaces flooring; provides adequate lighting and storage; provides hard-wired smoke detectors to allow annunciation on the base-wide system.

DEPARTMENT OF THE AIR FORCE
MILITARY FAMILY HOUSING
FISCAL YEAR 2001 BUDGET REQUEST

FAMILY HOUSING REPAIRS - NON GOQ UNITS
(EXCEEDING \$20,000 THRESHOLD)

<u>Location</u>	<u>No Units</u>	<u>Year Built</u>	<u>High Unit Cost (\$000)</u>	<u>Unit (NSM)</u>	<u>Proj (NSM)</u>	<u>Total Cost (\$000)</u>	<u>Improvements Non-Routine FY1996-2000 (\$000)</u>
<u>Travis</u>	39	1958	52	126	4,914	2,028	0

Narrative: Repairs finishes to kitchen cabinets, flooring, doors and hardware. Repairs electrical/mechanical systems, installs smoke detectors, and replaces outdated light fixtures. Finishes walls with texture and painting. Replaces bathroom fixtures. Repairs drainage problems including routing of downspouts to the street gutters and adjusting grading around units. Replaces cracked patio slabs and driveway slabs.

<u>Travis</u>	107	1957	21	126-158	13,573	1,765.5	0
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Narrative: Replaces inefficient and outdated evaporative coolers with state-of-the-art air conditioning units.

COLORADO

<u>USAF Academy</u>	8	1958	86	205	1,640	640	0
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Narrative: Repairs interiors, replace electrical service, plumbing fixtures, cabinets and countertops; relocate laundry facilities; relocates bathroom entrances; removes freestanding fireplaces; provides windows in bedrooms which lack windows; replaces roofs and siding where required; and provides landscaping enhancements.

DISTRICT OF
COLUMBIA

<u>Bolling AFB</u>	2	1975	23	120	240	46	0
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Narrative: Repair foundation walls to prevent basement flooding: excavate near foundations, seal foundation walls, provide drainage system, and install sump pumps in basements.

FLORIDA

<u>Tyndall</u>	10	1969	55	105	1,047	550	0
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Narrative: Renovates kitchen and baths and replace interior doors and stove. Relocates mechanical room for exterior access. Installs ground fault circuit-interrupters (GFCI), carpeting, tile flooring, and dishwashers.

DEPARTMENT OF THE AIR FORCE
MILITARY FAMILY HOUSING
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FAMILY HOUSING REPAIRS - NON GOQ UNITS
(EXCEEDING \$20,000 THRESHOLD)

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<u>Patrick</u>	110	1995	20	130	14,300	2,200	0

Narrative: Due to poor construction, leaks have developed around windows and construction joints resulting in water damage to the structure and occupants' belongings. This is one of four phases to repair exterior stucco and replace windows in the North and Central housing areas.

IDAHO

<u>Mtn Home</u>	3	1959	120	185	555	360	0
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Narrative: Replaces doors, windows, floors, roofs, including gutters, fascia, downspouts, new HVAC, new siding. Replaces fencing, electrical upgrade and landscaping.

ILLINOIS

<u>Scott</u>	18	1931	22	125	2,250	396	0
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Narrative: Complete replacement of slate roofs of historic housing units.

KANSAS

<u>McConnell</u>	47	1959	80	88-158	5,422	2,301	0
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Narrative: Repairs fire/life safety deficiencies, including installation of draft stops between duplex units, replacement of electrical system, and replacement of basement window with escapable-daylight window. Replaces deteriorated wood floors, driveways/sidewalks/stoops, and exterior fascia material. Relocates laundry and storage areas in basement. Improves bathrooms as needed.

NEBRASKA

<u>Offutt</u>	19	1961	35	238	4,522	532	0
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Narrative: Waterproofs basements and foundations, installs foundation drainage, regrades around dwelling, and repairs gutters and downspouts.

DEPARTMENT OF THE AIR FORCE
MILITARY FAMILY HOUSING
FISCAL YEAR 2001 BUDGET REQUEST

FAMILY HOUSING REPAIRS - NON GOQ UNITS
(EXCEEDING \$20,000 THRESHOLD)

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<u>NORTH</u>							
<u>CAROLINA</u>							

<u>Pope</u>	8	1933	250	226	1,810	1,704	0
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Narrative: NRHP registered units with no major restoration since 1933. Replaces the original utilities that are inefficient, well beyond their useful lives and do not meet current building codes. Replaces interior fixtures and finishes that are deteriorated and have multiple layers of peeling lead-based paints. Repairs kitchens, bathrooms, wall and floor coverings, windows, exterior walls, and increases HVAC efficiency.

NORTH
DAKOTA

<u>Grand Forks</u>	30	1964	67	115	3,450	2,010	25
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Narrative: Repairs to contemporary standards interiors, including heating, air conditioning, electric service, attic ventilation and insulation, basement drain tile, smoke detection. Relocates laundry rooms from basement and creates arctic recreation space in basement.

OHIO

<u>Wright-Patterson</u>	45	1970	20	105	4,725	900	0
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Narrative: Repairs kitchens, including replacing kitchen cabinets, sinks, faucets, counter tops, range hoods, garbage disposals, light fixtures and flooring. Repairs bathrooms, including replacing vanities, sinks, faucets, light fixtures, medicine cabinets, exhaust fans, flooring, tub and shower enclosures. Paints kitchen and bath ceilings and walls.

<u>Wright-Patterson</u>	50	1970	22	104	5,200	1,100	0
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Narrative: Repairs exteriors, including replacing siding, roofs, roof flashing, gutters, and downspouts. Replaces windows with new energy-efficient windows. Replaces exterior light fixtures, door bells, and range exterior hood vents. Repairs sidewalks, curbs, and steps. Replaces rear service doors, jambs, and locks on garages. Tuckpoint masonry. Constructs new gables and dormers, repair eaves, and construct new patio door covers.

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<u>OKLAHOMA</u>							
<u>Altus</u>	22	1977	63	126	2,772	1,386	0
Narrative: Replaces electrical, heating, and air conditioning systems. Renovates kitchens and bathrooms. Installs carpet and replaces floor tile.							
<u>SOUTH CAROLINA</u>							
<u>Charleston</u>	31	1959	80	130	4,030	1,550	0
Narrative: Removes and replaces kitchen cabinets, appliances, light fixtures, electrical switches and receptacles. Renovates bathrooms to include demolition, installation of new vanities, tubs, toilets, ceramic tile, light fixtures and electrical switches and receptacles. Replaces water and sewer lines.							
<u>TEXAS</u>							
<u>Brooks</u>	32	1962	28	154	4,928	864	0
Narrative: Installs vinyl siding over deteriorating exterior wood surfaces. Replaces leaking roofs, gutters, and downspouts. Replaces exterior doors. Replaces existing windows with energy-efficient double-pane windows. Abates lead-based paint.							
<u>VIRGINIA</u>							
<u>Langley</u>	20	1960	43	143	2,860	780	0
Narrative: Repairs bathrooms and kitchens including electrical, mechanical and plumbing repairs. Replaces cabinets, sinks, appliances, fixtures, and finishes. Remediates asbestos and lead-based paint.							
<u>WASHINGTON</u>							
<u>McChord</u>	26	1958	77	116	3,016	2,002	0
Narrative: Replaces and/or repairs plumbing, heating, insulation, electrical wiring, lighting, windows, doors, siding, roofs, and respective driveways, sidewalks, and attached/detached carports. Remodels existing bathrooms and interior to modern contemporary standard.							

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WYOMING

<u>F.E. Warren</u>	2	1910	39	253	506	78	0
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Narrative: Replaces the roof over a duplex containing two housing units. The roof has failed and leaks excessively.

<u>F.E. Warren</u>	7	1900	35	253	1,771	245	0
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Narrative: Repairs the wooden porches which have deteriorated and must be repaired per the National Historic Preservation Act (NHPA).

<u>F.E. Warren</u>	37	1900-1910	75	253	9,361	2,068.3	0
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Narrative: This project is the first of five phases to accomplish comprehensive repairs to 156 historic MFH units. Each phase will address requirements specific to units contained in that phase, but may address requirements for roofing, windows, paint, brick tuckpoint, porches, exterior woodwork, plumbing, heating, electrical and structural work.

OVERSEAS

ALASKA

<u>Eielson</u>	48	1948	30	120	5,760	1,296	313
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Narrative: Replaces deteriorated domestic heating system to include piping, valves, pumps, heat exchangers, fin-tube units, and hot water generators.

GUAM

<u>Andersen</u>	96	1949	34	139	13,344	2,700	0
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Narrative: Replaces air conditioning units with energy efficient models. Provides screen around exterior of unit to protect occupants from noise.

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<u>HAWAII</u>							
<u>Hickam</u>	29	1916	79	240	6,960	1,831	944
Narrative: Repairs historical units to include cabinets, counter tops, range hoods and flooring; repairs bathrooms to include tub/shower, lavatories, vanities, cabinets and flooring; repairs plumbing and electrical fixtures and systems; repairs roofs; and removes/abates environmental hazards.							
<u>Hickam</u>	4	1921	88	369	1,476	278	130
Narrative: Repairs historical units to include cabinets, counter tops, range hoods and flooring; repairs bathrooms to include tub/shower, lavatories, vanities, cabinets and flooring; repairs plumbing and electrical fixtures and systems; repairs roofs; and removes/abates environmental hazards.							
<u>JAPAN</u>							
<u>Kadena</u>	152	1979	25	107	16,264	3,192	0
Narrative: Phase 4 of kitchen repair project, to include replacement of cabinets, countertops, fixtures, electrical systems, appliances, and flooring.							
<u>Kadena</u>	3	1953	113	123	369	270	0
Narrative: Replaces roof to include demolition of existing tile roof, wooden trusses, ceiling and electrical lighting system, mechanical HVAC/domestic hot water systems; constructs concrete roof replacement.							
<u>Kadena</u>	136	1985	21	122	16,592	2,100	0
Narrative: Replaces waterlines, boilers and chillers to include piping, affected ceiling/floor/walls and electrical/mechanical system.							

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